

REMARKS

Claims 13 and 29 have been amended to correct an obvious typographical error.

Claims 1, 20, 22, 27, 35-45, and 47 were rejected under §112, second paragraph as being indefinite.

The examiner objected to the phrase “which are at least partially hollow with at least about 25 percent of the volume at the top of the peaks being empty,” stating that it was “unclear if each individual peak of the fringe is hollow or if the area opened between two peaks forms the hollow portion referred to in the claim.” Claims 1, 20, and 22 have been amended to meet the rejection under §112, second paragraph and thereby clarify the language. Claim 1 now reads:

1. A mono-layer or multi-layer film, sheet, or coating comprising at least one layer that displays a surface microstructure, which layer is a thermoplastic polymeric material having, wherein said fringes are non-perforated crater-like peaks which are at least partially hollow with at least about 25 percent of the volume at the top of the peak being empty and have a height of at least about 40 microns or more, in a density of 1000 or more per square centimeter.

Claims 20 and 22 have been similarly amended. The claims as amended are believed to obviate the rejection. The “hollow” portion does not mean the area opened between two peaks.

The examiner objected to the phrase “Hollowness Index, which is calculated by multiplying the hollow depth ratio,” in claim 5 as allegedly unclear as to what “hollow depth ratio” refers to. The examiner stated “Is this ratio referring to what length of the fringes is hollow?”

The term “Hollowness Index” is described extensively at pages 40-41. In view of the specification the term “Hollowness Index” is reasonable definite. Also, the phrase “which is calculated by multiplying the hollow depth ratio with the hollow diameter ratio” has been deleted from claim 5, which is believed to clarify the language and also obviate the rejection.

The examiner objected to the phrase “sheet or coating according to claim 13, wherein at least one of the layers is a foamed layer” in claim 14. The examiner stated that this claim appeared to be improperly dependent and should be dependent on claim 10. In response, applicant points out that claim 13 is itself dependent on claim 10. Accordingly, antecedent basis is proper. The rejection should be withdrawn.

In addition, the examiner objected to the use of the phrases “crater-like” and “textile-like” in claims 1, 20, 22, 27, and 35 because the claims include “elements not actually disclosed (those encompassed by ‘like’).”

However, the fringes and peaks are described extensively at pages 36-41, inter alia, of the application. In view of the specification, the phrase “crater-like” is reasonable definite.

Claim 27 has been amended to delete “textile-like,” which is believed to obviate this ground of rejection.

Finally, the examiner objected to claims 35-45 and 47 as reciting “a use without any active, positive steps delimiting how this use is actually practiced.” In response, claims 35-47 have been canceled, which obviates this ground of rejection.

Claims 35-45 and 47 were rejected under §101 for reciting “use” claims without delimiting steps. As indicated above, claims 35-47 have been canceled, which obviates this ground of rejection.

The §102 and §103 Rejections Based on Watanabe

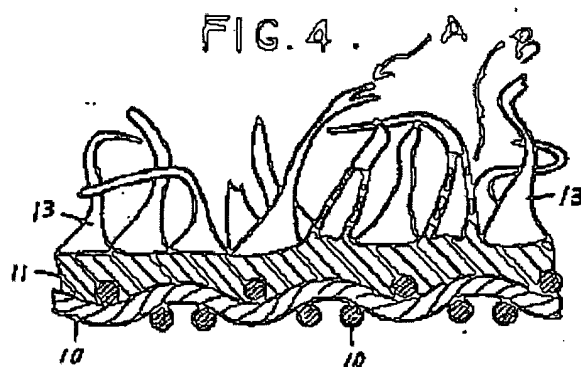
Claims 1-6, 10, 11, 20-22, 27, 30, 35, 38, 39, 42, 44, and 45 were rejected under §102(b) as being anticipated by Watanabe (US 3,600,260).

The examiner stated that in US 3,600,260 the microstructure formed by a layer of thermoplastic material laminated to a woven backing includes the “fringes are either hollow or solid with branched ends, giving 25 percent of volume of the peaks at the top being empty (Figure 4 and Column 4, lines 41-42.)”

Claims 1-6, 10, 11, 20-22, 27, 30, 35, 38, 39, 42, 44, and 45 were rejected under §103(a) as being unpatentable over US 3,600,260. The basis for this ground of rejection was essentially the same as the Examiner’s comments with respect to the §102 rejection.

Applicant will respond to these rejections simultaneously.

In Figure 4 from US 3,600,260 shown below, the “A” and “B” lines were added by the undersigned. “A” points to a fiber with a branched end. “B” points to a hollow fiber.



It can be seen in Figure 4 of US 3,600,260 that the “hollow” fringes (the “B” fibers) are depicted as having *enclosed* hollow sections. The hollow section is thus enclosed within a fiber, unlike the claimed structure which includes a peak having a crater-like peak (the hollow portion being open, similar to a table glass). Accordingly, US 3,600,260 neither teaches nor suggests the claimed structure.

In Figure 4 of US 3,600,260 the “A” fibers with a *branched ends* (split ends) in US 3,600,260 are depicted as having branches, not peaks with craters, as called for in the pending claims.

By contrast, claim 1 calls for

1. *A mono-layer or multi-layer film, sheet, or coating comprising at least one layer that displays a surface microstructure, which layer is a thermoplastic polymeric material having, wherein said fringes are non-perforated crater-like peaks which are at least partially hollow with at least about 25 percent of the volume at the top of the peak being empty and have a height of at least about 40 microns or more, in a density of 1000 or more per square centimeter.*

(Emphasis added.) Claim 1 thus recites that *the fringes are non-perforated crater-like peaks*. In Figure 1 of the present application, it should be appreciated that the peak shown is a *cross-sectional view* of the fiber. See page 41, lines 24-28. The three dimensional fringe structures “mimic bottle-like or glass-like shapes.” See page 39, lines 1-2. The claimed structures thus resemble a glass with an open top or, stated differently, a partially hollow tube with an open top. The claimed structure is thus unlike a “branched end” as described by US 3,600,260. It follows that the claims clearly distinguish from the “branched ends” of US 3,600,260 (see “B” in Figure 4 above) in that the “branched ends” as described by US 3,600,260 simply does not teach or suggest a crater-like structure.

In addition, applicant submits that there is no basis in US 3,600,260 for the examiner’s allegation that the fringes have “25 percent of volume of the peaks at the top being empty.” The examiner is respectfully requested to indicate where in the reference is this information taught or suggested. Applicant submits that no such information is

present in the reference; therefore, US 3,600,260 does not teach or suggest this aspect of the claimed invention. Accordingly, US 3,600,260 does not render the claims unpatentable for this additional reason.

The examiner's reliance upon *In re Seid* and *In re Dailey* is misplaced. To the extent these references stand for the proposition that configuration is a matter of choice to the skilled artisan, this law assumes that a skilled artisan would be capable of making the change. However, in this case there is no teaching or suggestion in US 3,600,260 or applied reference as to how to achieve fibers with crater-like peaks as claimed. Not only does US 3,600,260 fail to disclose crater-like peaks, but Watanabe states at column 4, lines 20-23 that

Some of the filaments are hollow inside, and some of the filaments are branched. The reason for these types of filaments being formed is still unknown at this time.

(Emphasis added.) Watanabe fails to understand how or why the fibers having enclosed hollow sections and fringes with branched ends, let alone how to make crater-like peaks. Watanabe fails to teach or suggest how to make crater-like peaks. Thus, a skilled artisan would not find the claimed crater-like peak to be an obvious configuration.

In view of the foregoing, the rejection based on US 3,600,260 was in error. Accordingly, applicant courteously requests that the rejections based on US 3,600,260 under §102 and §103.

The Additional §103 Rejections

Claims 7, 9, and 19 were rejected under §103(a) based on Watanabe in view of Hemming (US 3,987,228).

Applicant has thoroughly distinguished the claims from US 3,600,260 (Watanabe) above. Hemming is merely relied upon for the disclosure of curing, irradiation, or

crosslinking. Hemming does not fill the gaps in US 3,600,260; hence, the rejection based on US 3,600,260 in view of Hemming should be withdrawn.

Claims 8, 13, and 16 were rejected under §103(a) based on Watanabe in view of Strobel et al. (WO 99/16608).

Applicant has thoroughly distinguished the claims from US 3,600,260 (Watanabe) above. Strobel et al. is merely relied upon for the disclosure of surface microstructure formed on two sides. Strobel et al. does not fill the gaps in US 3,600,260; hence, the rejection based on US 3,600,260 in view of Strobel et al. should be withdrawn.

Claims 12 and 26 were rejected under §103(a) based on Watanabe (US 3,600,260) in view of Jones (US 3,814,791).

Applicant has thoroughly distinguished the claims from US 3,600,260 (Watanabe) above. Jones is merely relied on by the examiner to show an interlayer made of surface-structure layer where the surface-microstructure is used as part of a floor or wall covering. Jones does not fill the gaps in US 3,600,260; hence, the rejection based on US 3,600,260 in view of Jones should be withdrawn.

Claims 14, 15, and 36 were rejected under §103(a) based on Watanabe in view of Watanabe (US 3,809,734).

Applicant has thoroughly distinguished the claims from US 3,600,260 (Watanabe) above. Watanabe ('734) is merely relied upon by the examiner as disclosing an elastic foam layer in an automobile floor mat. Watanabe ('734) does not fill the gaps in US 3,600,260; hence, the rejection based on US 3,600,260 in view of Watanabe ('734) should be withdrawn.

Claims 17, 24, 25, and 46 were rejected under §103(a) as being unpatentable under §103(a) based on Watanabe in view of Quacquarella et al. (US 5,989,235).

Applicant has thoroughly distinguished the claims from US 3,600,260 (Watanabe) above. Quacquarella et al. is merely relied upon by the examiner to show a flocked thermoplastic material which is liquid impermeable in an ostomy bag. Hamlin does not fill the gaps in US 3,600,260; hence, the rejection based on US 3,600,260 in view of Quacquarella et al. should be withdrawn.

Claim 18 was rejected under §103(a) as being unpatentable over Watanabe in view of Fakuda et al. (US 5,407,735).

Applicant has thoroughly distinguished the claims from US 3,600,260 (Watanabe) above. Fakuda et al. is merely relied upon by the examiner to show a napped, fringed, fabric that has a hydrolyzing agent solution applied to the ends of fibers, fringe, by a printing process. Fakuda et al. does not fill the gaps in US 3,600,260; hence, the rejection based on US 3,600,260 in view of Fakuda et al. should be withdrawn.

Claim 28 was rejected under §103(a) as being unpatentable over Watanabe in view of Hamlin (US 5,815,840).

Applicant has thoroughly distinguished the claims from US 3,600,260 (Watanabe) above. Hamlin is merely relied upon by the examiner to show a liquid resistant (water repellant) layer. Hamlin does not fill the gaps in US 3,600,260; hence, the rejection based on US 3,600,260 in view of Hamlin should be withdrawn.

Claim 29 was rejected under §103(a) as being unpatentable over Watanabe in view of Reuben (US 4,174,991).

Applicant has thoroughly distinguished the claims from US 3,600,260 (Watanabe) above. Reuben is merely relied upon by the examiner to show an antiskid surface. Reuben does not fill the gaps in US 3,600,260; hence, the rejection based on US 3,600,260 in view of Reuben should be withdrawn.

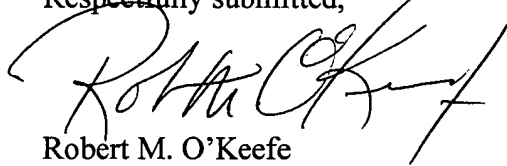
Claim 31 was rejected under §103(a) as being unpatentable over Watanabe in view of Nagura et al. (US 4,927,682).

Applicant has thoroughly distinguished the claims from US 3,600,260 (Watanabe) above. Nagura et al. is merely relied upon by the examiner to show a heat resistant layer. Nagura et al. does not fill the gaps in US 3,600,260; hence, the rejection based on US 3,600,260 in view of Nagura et al. should be withdrawn.

CONCLUSION

No fee is believed to be due; however, should any additional fees under 37 C.F.R. §1.16 to 1.21 be required for any reason relating to the enclosed materials, or should an overpayment be included herein, the Commissioner is authorized to deduct or credit said fees from or to Deposit Account No. 10-1205/ADVA:012.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Robert M. O'Keefe", written over the typed name.

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